

Date: Friday, 6/9/2006 11:32:30 AM
 User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : X-TUBE MATERIAL
Job Number : 27472	
Estimate Number : 12449	
P.O. Number : N/A	Part Number : D6018125
This Issue : 6/9/2006 S.O. No : N/A	Drawing Number : D6018 PRELIMINARY
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : PURCHASED PARTS	Drawing Revision : PREL
Previous Run : N/A	Material : N/A
Written By : _____	Due Date : 7/27/2006 Qty: 69 Um: Each
Checked & Approved By : _____	
Comment : Est Rev:A New Issue 06-06-09 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 1448

- a) Description: 4130 Seamless Steel Tube
 b) 2.299"OD X2.00" ID X125" Long
 c) Tolerance on all dimensions are as per Dwg D6018
 d) Material: AISI 4130 (AMS 6371) Seamless tube
 Material certification required

U 26-06-09 69

2.0	D6018125P	Crosstube Material
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 69.0000 Each(s)
 Crosstube Material

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

- Receive & Inspect For Transit Damage
 Ensure material certification is attached

PU 6/9/07 (70)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

EN 06/10/16 x 70

5.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

- Identify and Stock
 Location: MAT 07

06/10/16 x 70

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/02/19

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 6/9/2006 11:32:31 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: X-TUBE MATERIAL

Job Number: 27472

Part Number: D6018125

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

DC

DOCUMENT CONTROL



(69)

Comment: DOCUMENT CONTROL

Inspection Level 21

07/02/19

Job Completion



U 07-02-16

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

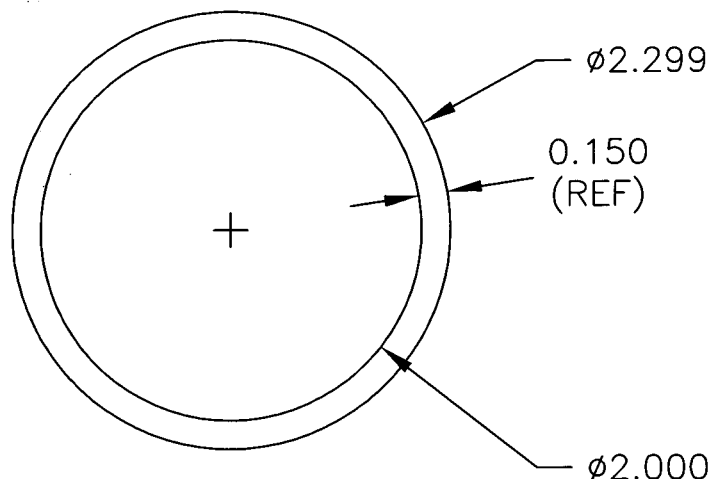
NOTE: Date & initial all entries

PRELIMINARY ISSUE

06.05.31

DESIGN QP	DRAWN BY QP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D6018	REV. A SHEET 1 OF 1
DATE 06.05.31		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	06.05.31	NEW ISSUE	

SPECIFICATION CONTROL DRAWING



NOTES

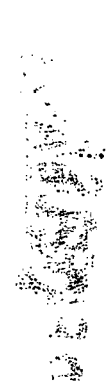
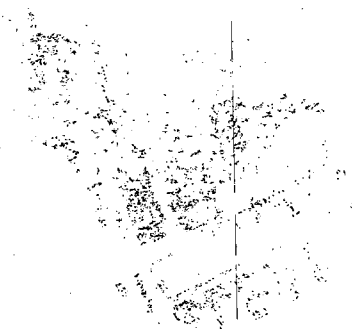
- 1) D6018-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 125" LONG TUBE: D6018-125

- 2) MATERIAL: AISI 4130 (AMS 6371) SEAMLESS STEEL TUBE
2.299 OD x 2.000 ID
NORMALIZED & ANNEALED
- 3) TOLERANCES ARE PER ASTM A519 AS FOLLOWS:
O.D.: +0.007/-0.000
I.D.: +0.000/-0.007
LENGTH: XXX +0.188/-0.000
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

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MICHIGAN
seamless tube

TEST REPORT

SHIPMENT

001

ORDER NUMBER	CUSTOMER ORDER NUMBER	DATE	OFC	COM	DI WI	NET SLS	GR SLS	ACCOUNT NUMBER	US	PAGE
024564	061206JOE	06/14/06	22	00	15	16	01	02598001FCO	IDR	1

FACTORY STEEL & METAL SUPPLY
14020 OAKLAND

SHIP FACTORY STEEL & METAL SUPPLY SN 2
14020 OAKLAND TR 3
DETROIT MI 48203 INV 3

OPEN TOP/FULLY TARPED/FOB SOUTH LYON MI

PPD TRUCK

ANALYSIS	SHAPE	PRODUCT	FC	ANNEAL	REQUESTED
4130	ROUND	COLD DRAWN		PER SPEC	08/25/06
SPECIFICATION		CMST	DESCRIPTION		PROMISE
SEAMLESS		AMS6371/A519	CD ALLOY AIRCRAFT		08/25/06

SPECIAL INSTRUCTIONS
80M PSI MIN YLD, AIM 90 PSI, CERT TO A519-96, MILT-6736BN NOTE-2
AMS-6360K W/DECARB LEVELS TO AMS-6371J, AMS-T-6736AN, 4130H&AMS-
2301J. PRODUCE FROM 1-HT. MARK TO INCL. GRADE, A519-96, MILT-6736BN,
NOTE-2, AMS-T6736AN, AMS-6371J, AMS6360K&4130H. MAT'L TO BE BOXED.
OIL OD SURFACE CRITICAL. CIRCUMFERENTIAL GRIND MARKS UNACCEPTABLE

ITEM	QUANTITY	O.D.	I.D.	WALL	LENGTH	WT/FT	WEIGHT
		2.299	2.000			3.443	08:18:42 08/27/06

BALE --BALE--

PART
NUMBER

NUM	PCS	FTG	HEAT NO.	LENGTH	US
1	1	40	416	00A062753	CUT 10' 5.000"
1	2	1	30	312	00A062753

NO.	C	Mn	P	S	Si	Ni	Cr	Mo	Cu	Al	REMARKS
2753	.290	.530	.012	.017	.27	.070	1.040	.160	.160	.023	EF S01 USA

HEAT NO.	ULT. STR. PSI	YIELD, PSI	% ELONG	HARDNESS	HYDRO TEST PSI	ULTRA SONIC %	EDDY CURRENT	EXPANSION
A062753	110,390	98,929	18.8	HRC 20-22			OK	
BEND		FLATTEN		FLARE		REV. FLATTEN		FLANGE

OKAY GRAIN SIZE 7

01 SEV 0.01

S1, R1, C2

J1 J2 J3 J4 J5 J6 J7 J8 J9 J10
50 50 48 44 40 35 34 32 31 29
MELTED AND MANUFACTURED IN USA

We hereby certify that the reported data are correct according to Michigan Seamless Tube tests and those of its suppliers.

